

WHAT IS CLAIMED IS:

1. A magnetically configurable adjuster device for trimming a circuit of a packaged integrated circuit (IC) chip to which the magnetically configurable adjuster device is coupled, the magnetically configurable adjuster device comprising:

5 a Hall element, wherein the Hall element can sense a magnetic field that is applied onto the packaged IC chip to trim the circuit of the packaged IC chip, and generate a corresponding voltage signal;

10 a signal processor and amplifier device that is connected to the Hall element, wherein the signal processor and amplifier device receives and amplifies the voltage signal from the Hall element;

a decoder that is connected to the signal processor and amplifier device, wherein the decoder receives the voltage signal amplified by the signal processor and amplifier device and outputs a plurality of corresponding decoded signals; and

15 a configurable adjuster that is connected to the decoder, wherein the configurable adjuster includes a plurality of circuit-trimming members and a plurality of electrically configurable elements which configurations can be modified by the decoded signals so as to accomplish a desired circuit trimming of the packaged IC chip via the circuit-trimming members.

20 2. The magnetically configurable adjuster device of claim 1, wherein the electrically configurable elements include a metal fuse.

3. The magnetically configurable adjuster device of claim 1, wherein the electrically configurable elements include a poly-fuse.

4. The magnetically configurable adjuster device of claim 1, wherein the electrically configurable elements include a zapped diode.

5. The magnetically configurable adjuster device of claim 1, wherein the electrically configurable elements include an Electrically Programmable Read Only Memory (EPROM) device.

6. The magnetically configurable adjuster device of claim 1, wherein the electrically configurable elements include an Electrically Erasable and Programmable Read Only Memory (EEPROM) device.

7. The magnetically configurable adjuster device of claim 1, wherein the electrically configurable elements include an amorphous silicon-based fuse.

8. The magnetically configurable adjuster device of claim 1, wherein the electrically configurable elements include an oxide/nitride/oxide (ONO) based antifuse.

9. The magnetically configurable adjuster device of claim 1, wherein the circuit-trimming members include a resistor.

10. A method for trimming a circuit of a packaged integrated circuit (IC) chip, wherein the packaged IC chip is provided with a magnetically configurable adjuster device for circuit trimming, the method comprising:

testing the circuit of the packaged IC chip to obtain a responsive output signal thereof; and

according to the response of the output signal, applying a magnetic field to trim the circuit of the packaged IC chip by Hall effect so that a desired output signal is obtained.

11. An installation for trimming a circuit of a packaged integrated circuit (IC) chip, the installation comprising:

a testing apparatus, wherein the testing apparatus tests the circuit of the packaged IC chip to obtain a responsive output signal thereof, and delivers a trim signal

according to the responsive output signal to command a circuit trimming;

a magnetic field generator that is coupled with the testing apparatus, wherein the magnetic field generator receives the trim signal and generates a magnetic field in accordance with the trim signal, wherein the magnetic field is applied on the packaged

5 IC chip; and

a magnetically configurable adjuster device electrically coupled with the circuit of the packaged IC chip, wherein the magnetically configurable adjuster device further includes a Hall element, a decoder, a plurality of electrically configurable elements, and a plurality of circuit-trimming members that are coupled with one another in such a manner that the magnetic field generates a resulting electrical signal that configure the electrically configurable elements to obtain a desired circuit trimming of the packaged IC chip via the circuit-trimming members.

12. The installation of claim 11, wherein the electrically configurable elements include a metal fuse.

15 13. The installation of claim 11, wherein the electrically configurable elements include a poly-fuse.

14. The installation of claim 11, wherein the electrically configurable elements include a zapped diode.

20 15. The installation of claim 11, wherein the electrically configurable elements include an Electrically Programmable Read Only Memory (EPROM) device.

16. The installation of claim 11, wherein the electrically configurable elements include an Electrically Erasable and Programmable Read Only Memory (EEPROM) device.

17. The installation of claim 11, wherein the electrically configurable elements

include an amorphous silicon-based fuse.

18. The installation of claim 11, wherein the electrically configurable elements include an oxide/nitride/oxide (ONO) based antifuse.

19. The installation of claim 11, wherein the circuit-trimming members include a resistor.

20. A method for trimming a circuit of a packaged IC chip by using a magnetic field, wherein a configurable adjuster for circuit trimming is coupled with the circuit of the packaged IC chip, and further includes a plurality of configurable elements and circuit-trimming members, the method comprising:

sensing the magnetic field;

generating a voltage signal from the sensed magnetic field by Hall effect; and

decoding the voltage signal into a plurality of decoded signals that configure the configurable elements so as to obtain a desired circuit trim of the packaged IC chip via the circuit-trimming members.